Euphonix System 5

Euphonix PC 254H

System 5 Hybrid Pilot

Operation Manual

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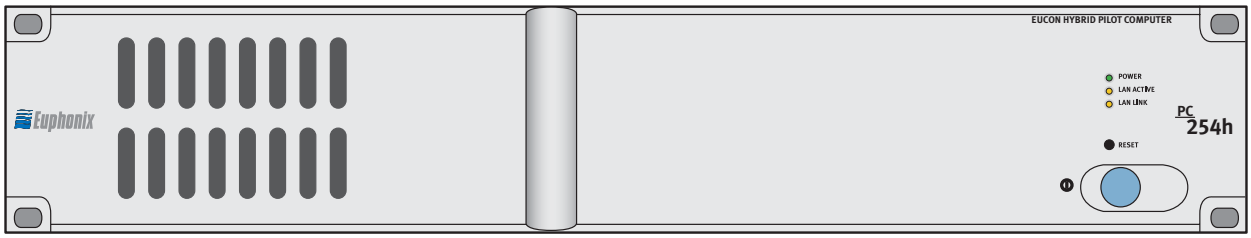

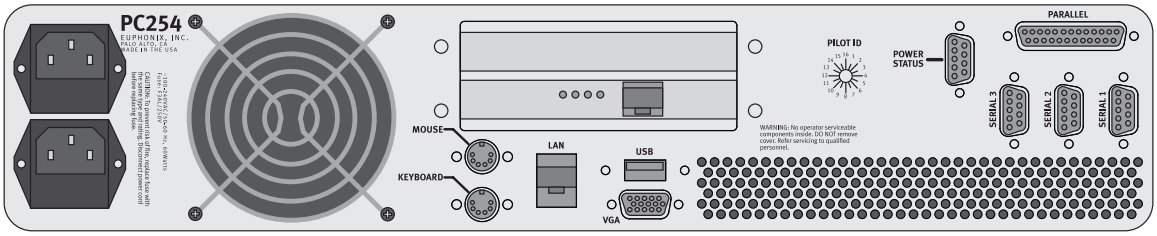

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Euphonix
digital emotion

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Note: *This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.*

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IMPORTANT SAFETY INSTRUCTIONS

The lighting flash with arrowhead symbol within an equilateral triangle, is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electrical shock to persons.

The exclamation point within an equilateral triangle, is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

1) Read these instructions.

2) Keep these instructions.

3) Heed all warnings.

4) Follow all instructions.

5) Do not use this apparatus near water.

6) Clean only with a dry cloth.

7) Do not block any ventilation openings. Install in accordance with the manufacturer’s instructions.

8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wider blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

11) Only use attachments/accessories specified by the manufacturer.

12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

13) Unplug this apparatus during lightning storms or when unused for long periods of time.

14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

15) **WARNING** – TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE.

16) Do not expose this equipment to dripping or splashing and ensure that no objects filled with liquids, such as vases, are placed on the equipment.

17) To completely disconnect this equipment from the AC Mains, disconnect the power supply cord plug from the AC receptacle.

18) The mains plug of the power supply cord shall remain readily operable.

19) This unit is provided with a power supply cord set suitable for 120V AC input only (for U.S.A. and Canada). For other than U.S.A. and Canada, a qualified person must provide for use with this unit, an appropriate, approved power supply cord set which is in compliance with the end use country requirements and has a minimum cross-sectional area of 1.0mm^2.

20) For units with more than one power cord:

    Caution: This unit has more than one power supply cord. Disconnect two power supply cords before servicing to avoid electrical shock.

    Attention: Cet appareil comporte plus d'un cordon d'alimentation. Afin de prévenir les chocs électriques, débrancher les deux cordons d'alimentation avant de faire le dépannage.

21) Operator Accessible Fuse:

    Caution: For continued protection against risk of fire, replace only with same type and rating of fuse.

    Attention: Pour ne pas compromettre la protection contre les risques d'incendie, remplacer par un fusible de même type et de même caractéristiques nominales.

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Chapter 1: Installation and Configuration

This chapter introduces the Hybrid Pilot and instructs you how to configure it and the Euphonix System 5 console to work together.

1.1 Introduction

As digital audio workstations become more prevalent in the audio production environment, it is vital to smoothly integrate them into the production workflow. The Euphonix MC and System 5-MC products are full-featured control surfaces able to control and communicate with multiple software products (Nuendo, Logic, Pyramix, Pro Tools, etc.).

The System 5 Hybrid Pilot brings that functionality into the System 5 console:

- Tracks can be loaded from DAWs onto the console surface.
- SmartSwitch functionality enables DAW control and editing directly from the console surface.
- Tracks from different DAWs co-exist on the surface alongside tracks from regular System 5 sources, enabling simultaneous use of many different sources and total control of the studio from the console.

1.2 System 5 PC Software

Before proceeding make sure your components are up-to-date:

- System 5 software must be version 3.00 or higher.
- System 5 Studio Computer SC262/263 must be imaged with .v03 or higher.
- See System 5 Manual for step-by-step installation instructions.

1.3 Hybrid Pilot Connection and Configuration

The Hybrid Pilot arrives with its software installed and configured, but it must be connected properly.

The first time the Hybrid Pilot is booted after connecting to the System 5, it will check for new software and automatically update itself. This process may take a few minutes and briefly delay the Hybrid being visible in eMix.

1.3.1 Network Connections

The Hybrid Pilot has two Ethernet ports on the rear panel, one above the other. All connections should be made with straight-through Category 5 network cables.

1. Connect the bottom port to the System 5 console network switch.
2. Connect the top port to the included DHCP-capable network router. The Hybrid Pilot ships with DHCP enabled (on the network adapter with the top port), allowing it to automatically obtain an IP address.

NOTE: *Do NOT connect your DAWs to the System 5 console network switch.*

For fixed IP configurations please see your netowrk administrator.

1.3.2 KVM Connection (Optional)

The Hybrid Pilot can use the Ontrack ADU-200 relay device (available from Euphonix) to control a KVM (keyboard/video/mouse) switch with an RJ-45 port, such as the Gefen eX-Tend-It series. To implement this functionality:

1. Connect the video outputs of your workstations to the KVM inputs.
2. Connect the KVM video output to your main display.
3. Connect the Ontrack ADU-200's USB plug to one of the Hybrid Pilot's rear panel USB ports.
4. Connect a shielded RJ-45 Ethernet cable from the Ontrack's RJ-45 port to your KVM's RJ-45 port.

   The cable *MUST BE SHIELDED* or the switching will not function properly. Check that the RJ-45 connectors have metal ends.

Now when a **Workstation** key is pressed on the CM401 subpanel, the Hybrid Pilot sends a switch command to the KVM and changes your display to reflect that KVM input.

NOTE: *Since the Hybrid Pilot does not know the order your workstations were connected to the KVM, we recommend assigning the workstation attached to KVM input 1 to the first workstation listed in the subpanel, the workstation attached to KVM input 2 to the second workstation listed, etc.*

1.4 Workstation Setup

EuCon is a high-speed audio data transfer protocol created by Euphonix. EuCon-aware applications (Nuendo, Pyramix, Logic) offer full control through EuCon commands, while Mackie Control Universal and HUI emulation over the EuCon connection enables control of Pro Tools and other software.

Each DAW must be networked with the Hybrid Pilot and the EuCon software must be installed to enable EuCon control and communication.

1.4.1 Network Configuration

Using straight-through RJ-45 Ethernet cables, connect your workstation(s) to the **LAN** ports on the included DHCP-capable network router.

NOTE: *You have now created a small local area network comprised of just the Hybrid Pilot and your workstation(s). To access an outside network, such as a studio facility LAN or the Internet, connect the WAN port on the router to your studio's network switch, or to your cable/DSL modem.*

The DHCP server in the included router hands out IP addresses to the devices connected to its LAN ports: the Hybrid Pilot and your workstation(s). This allows easy plug-and-play network configuration. ***For this reason, the router must be turned on before the Hybrid and your workstation(s).***

1.4.2 EuCon Software Installation

Install the EuCon software on every workstation connected to the Hybrid Pilot through the DHCP-capable router. Check www.euphonix.com for updated versions of the EuCon software.

NOTE: *The EuCon software also serves to communicate with the Euphonix MC/System 5-MC products, and contains references to those products.*

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1. Insert the *Euphonix S5 Software Installation* CD in your workstation's CD/DVD drive.

   In Mac OS X, double-click the CD icon on the desktop, and double-click the *EuConWS* package in the workstation software folder.

   The Install program launches. Proceed to Step 3.

2. To proceed with installation:
   a. Minimize all programs.
   b. Double-click **My Computer** on the desktop to display the drives on your computer.
   c. Double-click the CD/DVD drive.
   d. Double-click the *EuConWS* executable file in the workstation software folder.

   The Setup Wizard opens.
3. Click **Next** and choose a directory to install the software.

   The default Windows directory is **C:\Program Files\Euphonix\EuCon**.

   The default Macintosh OS X directory is the Applications folder.
4. For Windows installations, click **Next** to customize the software components to install.

   EuCon Workstation Core is automatically selected (this is the basic software used to communicate with the Hybrid Pilot). Select further options according to your DAW:
   a. For Nuendo workstations, select only the **EuCon adapter for Nuendo** and **VST plugin layouts for Nuendo** options.
   b. For Pyramix, select only the **EuCon adapter for Pyramix** option.
   c. For all other DAWs, do not change the currently selected options.
5. Click **Next** to continue.
6. Select locations for application shortcuts in the **Start** menu.

   The default is a **EuCon** folder in the **Start** menu with shortcuts to the EuCon applications.
7. Click **Next** to continue.

   The Wizard now displays a summary of all options selected during the setup process. To change them, click **Back** until the desired setup option appears.
8. Click **Install**.

   The Wizard installs the selected components to your workstation.
9. Click **Finish** to exit the Wizard.

NOTE: *When first running the MC Client, the Windows Firewall may ask whether to block or unblock MC Client and EuCon Discovery from accessing the Internet or local area network. Because all communication between the MC Client and the Hybrid Pilot occurs through the workstation's network connection, you must select **Unblock** or it will not communicate with the Hybrid Pilot.*

Chapter 2: Console/Workstation Operations

This chapter discusses starting up the Hybrid Pilot, communicating with the System 5 console, and using the Hybrid Pilot with System 5.

2.1 System 5 PC Startup

When the Hybrid Pilot is launched, boot up the System 5 PC and launch eMix. Once launched, check that the list of modules (System 5 Pilot, CM401, CM402, and CM408 modules) includes the Hybrid pilot. If it does not, recheck your steps up to this point to make sure the Hybrid and System 5 PC are set up correctly. The Hybrid must be listed to be correctly interfaced with for the System 5. If the Hybrid is updating it may require a few minutes before it is visible.

2.2 Hybrid Operations

The Hybrid Pilot connects to workstations running the EuCon software and makes their tracks available to the System 5 surface. These tracks are as easily assignable as any other input/output source. It also enables *application sets*, a set of SmartSwitches with customized functionality for each DAW.

2.2.1 Assigning Workstations and Tracks

1. On the CM401 center module's main panel, press the **EuCon** button (upper left).

   The panel shows the **Setup** and **Smrt** options at the bottom.

2. Press the **Setup** button.

   The panel displays all workstations available.

3. Press a workstation button to attach it to the Hybrid.

   The button flashes slowly while the workstation is attaching. The button flashes more quickly while waiting for a supported application or while downloading tracks. If the button continues flashing quickly, verify that the application is running and in focus. When the Hybrid has finished, the workstation appears in the subpanel.

4. The Hybrid automatically assigns each workstation to the next available slot on the lower panel of the CM401. To assign a workstation to a different slot, hold down the desired slot's button and press the workstation's button in the main CM401 panel.

5. Press one of the subpanel buttons to select that workstation.

   The tracks available from the workstation appear in the main panel.

6. Press **Auto**, and assign them to the System 5 surface as usual.

2.3 Application Sets

The Hybrid enables DAW functions to be performed from the System 5 surface using Application Sets and SmartSwitches (also known as Soft Keys). An Application Set is a set of Soft Keys for a specific application.

The Application Set's functions show up on the CM401 main panel. To view them, press the **EuCon** button on the main panel display. Then press the **Smrt** button at the bottom. The current Application Set is displayed.

The Application Set changes depending on the currently selected workstation in the subpanel. If the console is not connected to any workstation, no Application Set is displayed.

The Application Set functions only affect tracks coming from the DAW to which the Hybrid is connected. The Hybrid is specifically communicating with that workstation and cannot affect settings on tracks from another DAW. For example, to use Soft Keys with a Nuendo track, the Hybrid must be connected to the Nuendo workstation.

2.4 Steinberg Nuendo

Nuendo is a powerful DAW that can handle as many tracks and effects as your workstation's CPU can support. It offers multitrack recording, editing, and monitoring. Steinberg's optional EuCon device driver enables fully integrated control of channel operations from the CM408 channel strips.

2.4.1 Configuration

To enable Nuendo to work with the Hybrid, you must obtain a Nuendo EuCon Adapter license from Euphonix and download it to your Syncrosoft USB protection device (dongle):

1. Close all open applications.
2. Start the Nuendo License Control Center by choosing **Start Menu->Steinberg Nuendo 3->License Control Center**.
3. Choose **License Download** from the **Wizards** menu.

   Choose **License Transfer** to transfer an existing Nuendo EuCon license to a new USB dongle.
4. When prompted, enter the activation code for Nuendo EuCon provided by Euphonix.

5. Make sure you are downloading the correct license, then click **Next**.
6. Make sure your USB dongle is attached to your workstation, select the target device to which the license will be assigned, and click **Next**.
7. Press **Download** to transfer the license onto your USB dongle.
8. Close the wizard and open Nuendo.

The Nuendo EuCon Adapter must be installed during the EuConWS software installation. Note that this is the Eucon Client's Nuendo adapter. For Nuendo to communicate with the Hybrid, Nuendo's EuCon device must be added in the Device Setup dialog:

1. Choose **Device Setup** from Nuendo's **Devices** menu.

   The Device Setup dialog opens.
2. Click the + button (add) on the top-left.

   A drop-down list of devices appears. **EuCon** should appear near the top of the list. If not, close Nuendo and use the EuCon Workstation installer to install the Nuendo EuCon Adapter (optional in Windows installer, installs by default with the Mac installer).
3. Select **EuCon** from the drop-down list.

   The EuCon device is added.

MIDI Tracks

Nuendo MIDI tracks are supported on the surface. The Insert, Dyn, Pan, Insert, and Mix Knobsets can be used with Nuendo MIDI tracks.

The Insert Knobset has only four insert slots (audio channels have eight). Insert MIDI plugins can be modified and automated in the Insert Knobset on MIDI tracks. Bypass has no effect on MIDI inserts.

The Pan Knobset allows stereo-only panning of MIDI devices.

The Dyn Knobset selection opens the first Compress MIDI plugin when loaded into one of the insert slots (MIDI plugin instantiation is only possible with the trackball at this time). Knobs in the Dyn Knobset allow modification and automation of parameters of Nuendo Compress plugins.

VSTi Tracks

VSTi tracks have only slightly different features than audio channels: The **Record** and **Monitor** buttons are disabled, VSTi instantiation is possible only with the trackball, and the Input Knobset is non-functional. Otherwise, VSTi tracks function identically to audio channels.

EuCon Adapter Preferences

This section discusses EuCon Adapter Preferences for track assignment and transport control.

Studio Sends

The Studio sends are on page 2 of the Aux Send Knobset. Knob 1 is send 1's pan, Knob 2 is send 1's level. Knob 2's switches control on/off and pre/post, exactly like the aux knobs. The four-character displays show **S1 L** for the level and **S1 P** for the panner. All subsequent studio sends are arranged accordingly.

NOTE: *Currently, the studio sends inspector pane or extended mixer channel strip cannot be displayed from Aux Knobset page 2. You must use the trackball to select the Studio Sends view from the Nuendo Inspector or extended mixer channel strip.*

2.5 Merging Technologies Pyramix

Pyramix is a DAW solution comprised of:

- **Dedicated DSP cards** perform real-time mixing and editing (i.e., edit/copy a clip while playing a project).
- **Pyramix Virtual Studio software** optimizes the DAW environment to your workflow.

Pyramix has flexible monitoring, recording, signal routing, and processing capabilities and supports unlimited internal tracks and up to 128 mixer channels.

Merging Technologies has created a default Application Set that can be easily modified to suit your preferred working style.

2.5.1 Configuration

To enable the use of the Hybrid with Pyramix, the **Eucon adapter for Pyramix** checkbox must be selected during the Eucon Client software installation. Then add the Hybrid as an installed controller in Pyramix:

1. Launch the Pyramix Virtual Studio software.
2. Press the **Pref** key on the CM401 Soft Keys.

   The bank changes to show two options:

Home: Restores the first bank of soft keys

Show Settings: Opens the Pyramix Settings dialog box (alternatively, choose **All Settings** from the **Settings** menu in Pyramix Virtual Studio).

3. Click **Show Settings.**

   A dialog appears showing a list of the various types of adjustable settings on the left side.

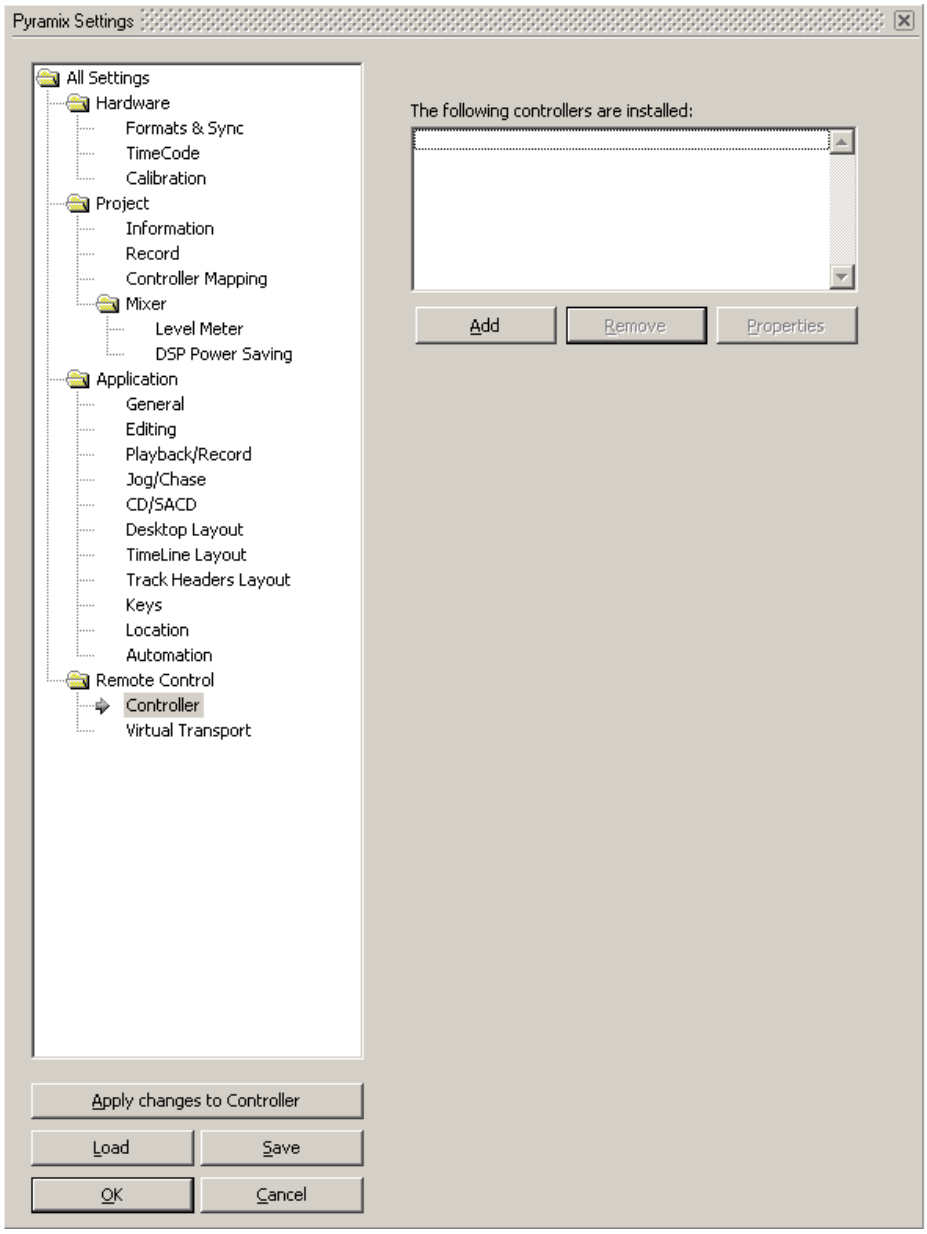

Figure 2-1 Pyramix Settings

4. Click **Controller.**

   The right pane shows any installed controllers. However, at this point the pane is empty unless other interface controllers have been previously installed.

5. Click the **Add** button.

   The Controller Properties dialog opens.

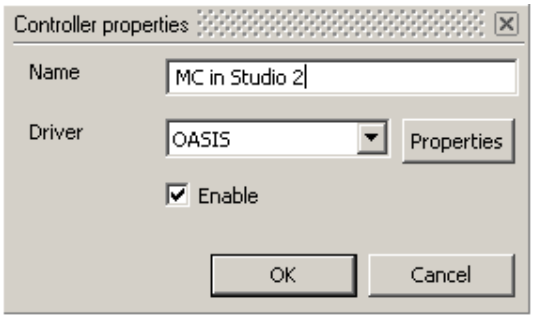

Figure 2-2 Controller Properties dialog

6. Type the desired Hybrid name in the **Name** field (i.e., *Hybrid in Studio 2*).
7. Select the **Enable** checkbox.
8. Choose **OASIS** from the **Driver** drop-down selection box.
9. Click the **Properties** button next to the **Driver** selection box.

   The OASIS Configuration Properties dialog opens.

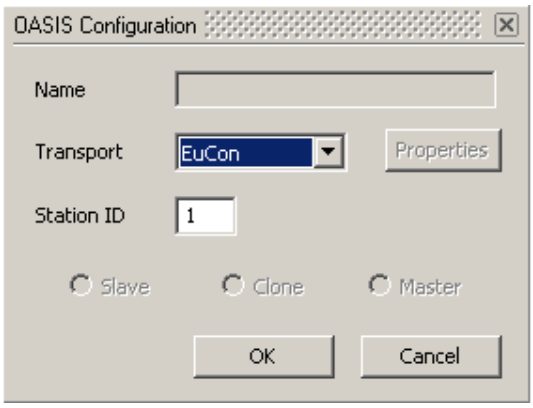

Figure 2-3 OASIS Configuration Properties dialog

10. Select EuCon from the Transport drop-down menu.

    If **EuCon** is not in the drop-down menu, it is probably because the EuCon Client is not running. Check that the EuCon Client menu tray icon is present. If not, launch the EuCon Client using the shortcuts in the **Start** menu or the **Euphonix** folder.

    Leave the **Station ID** at its default setting of 1 unless you have multiple controllers, in which case simply increment the setting (i.e., if two controllers are installed, set the **Station ID** = 3 for the Hybrid.

11. Press **OK** to exit that dialog, press **OK** on the Controller Properties dialog and press **OK** on the General Settings dialog.

12. Close Pyramix, reboot the workstations, and then open Pyramix Virtual Studio.

    Pyramix will not connect to the Hybrid properly without rebooting the workstation.

2.5.2 Plugin Integration

The Hybrid can control Pyramix plugins using the CM408 knobsets. Euphonix supports most Pyramix plugins and continues to add others. Pyramix plugins cannot be instantiated from the surface at this time; however plugin parameters can be edited and automated from the touch-sensitive Soft Knobs.

To edit an instantiated Pyramix plugin:

1. Select the desired channel on the CM408 strip.
2. Press the **Inserts** Soft Knob key on the CM408.

   The knobset on the CM408 changes to reflect the plugins available for editing.

3. Press the Soft Knob top or the related Soft Key to edit the plugin.

2.6 HUI Applications

HUI is a control protocol developed by Mackie that works with most DAWs. The HUI protocol is limited by the original HUI specification, and thus the Hybrid must emulate the physical controls of the actual HUI hardware.

2.6.1 Digidesign Pro Tools

Pro Tools is a multitrack recording DAW that is compatible with the HUI controller. The Hybrid uses HUI commands and extensive Pro Tools key commands to control Pro Tools operations. It has the additional advantage of being able to control multiple workstations from one surface in a studio with multiple Pro Tools systems. HUI commands are sent/received via high-speed Ethernet rather than MIDI cables, an improvement over the original HUI hardware's design.

Installation

Mac OS X users must first install the EuCon Workstation installer. Since HUI and Mackie Control Universal use MIDI to communicate, they require allocation of MIDI ports by OSX. The OSX EuCon software creates a virtual MIDI driver with 32 ports, but actual communication with the Hybrid occurs via the faster and more reliable Ethernet network. HUI and Mackie Control use four MIDI ports per application. Ports are allocated in the Euphonix Preferences Pane (**Apple Menu->System Preferences/EuPrefsPane**). Figure 2-4 shows a possible application. This configuration is only necessary with HUI and Mackie Control applications. EuCon-aware applications communicate automatically with the Hybrid.

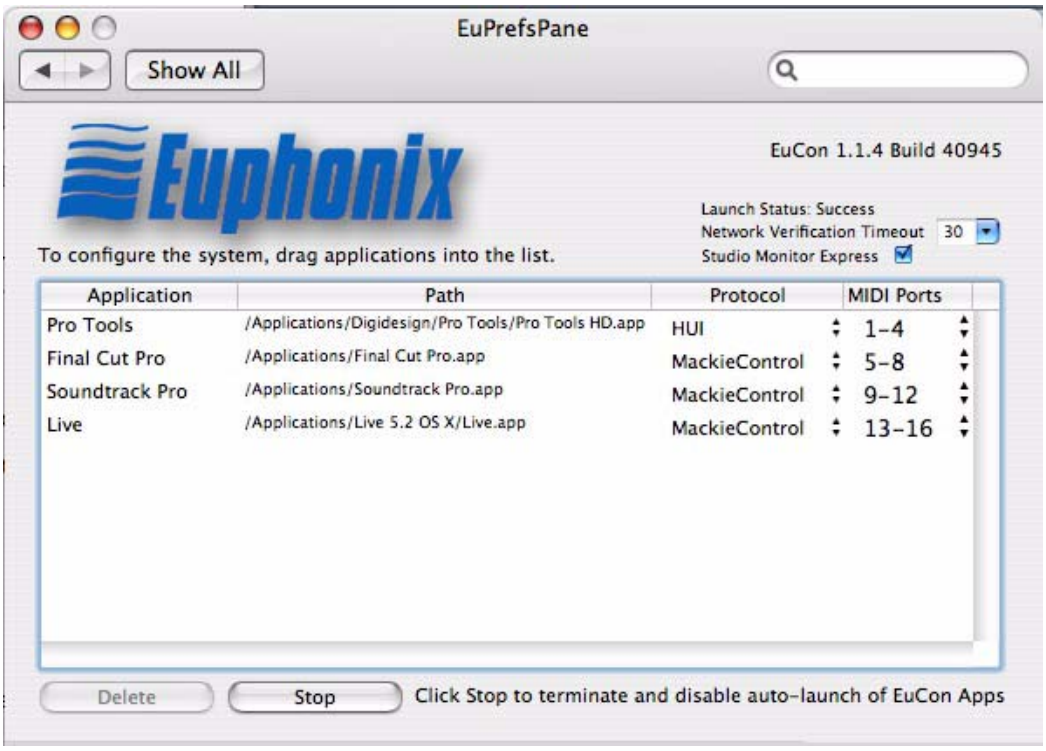

Figure 2-4 Euphonix Preferences pane

To install required EuCon HUI components to control Pro Tools:

1. Launch Pro Tools.
2. Choose **Peripherals** from the Operations menu.

   The Peripherals dialog opens.
3. Click the **MIDI Controllers** tab.

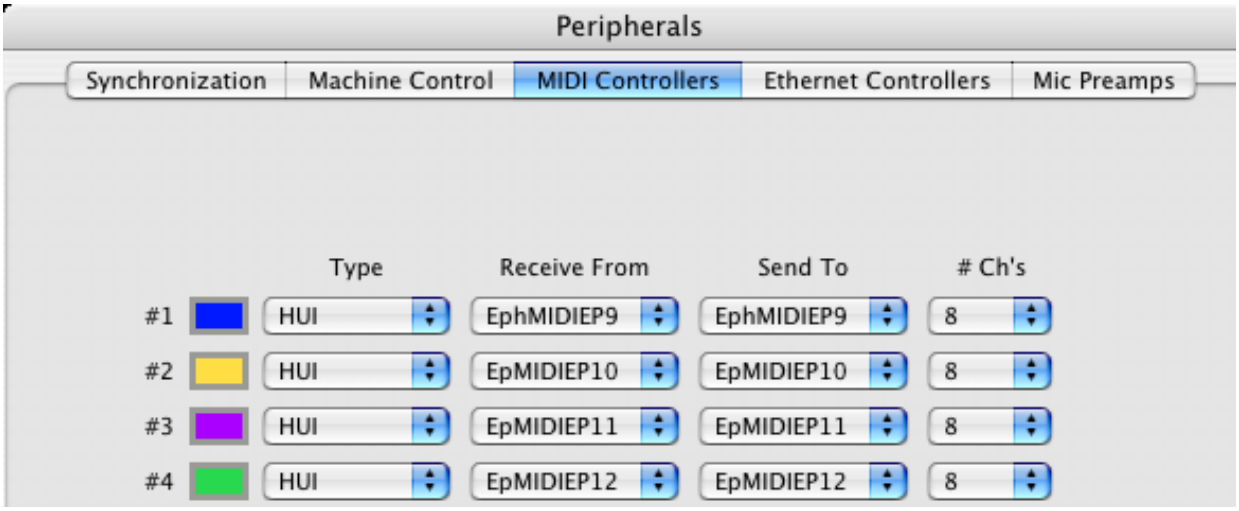

Figure 2-5 Pro Tools Peripherals dialog

Pro Tools has configuration boxes for the four possible controllers. We recommend configuring all four HUI controllers.

4. Select **HUI** from the **Type** drop-down box for each controller to configure.
5. Configure each controller to have the input and output MIDI ports set for Pro Tools in the Euphonix Preferences Pane (see Figure 2-4). Click on the **Receive From** and **Send To** drop-down menus, hover over **Predefined**, then select from the Euphonix MIDI ports.

   For example, if you set Pro Tools to use MIDI ports 9–12, your first HUI controller's receive and transmit ports should be set to **EphMIDIEP9**.

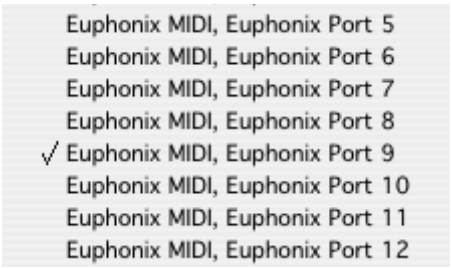
Euphonix MIDI, Euphonix Port 5
Euphonix MIDI, Euphonix Port 6
Euphonix MIDI, Euphonix Port 7
Euphonix MIDI, Euphonix Port 8
√ Euphonix MIDI, Euphonix Port 9
Euphonix MIDI, Euphonix Port 10
Euphonix MIDI, Euphonix Port 11
Euphonix MIDI, Euphonix Port 12

Figure 2-6 Excerpt from Pro Tools MIDI menu

6. Select **8** from the **Ch #** drop-down menu as the number of channels for each controller.
7. Press **OK**.

   The Hybrid updates the channel and track information.

Using and Modifying Plugins

The Hybrid can instantiate and edit Pro Tools plugins.

Make sure the channel you are editing is in the first HUI since *only these channels support plugin instantiation and editing*. Channels on the first HUI show a blue border around the track name in the Pro Tools Edit and Mix windows. If the channel is not in the first HUI, use the HUI channel forward/back buttons on the CM401 Soft Keys.

To instantiate plugins:

1. Press the **Channel Insert** Soft Knob.
2. On the CM401 Soft Keys, press **DSP Assign** (top-left).

   The **DSP Assign** Soft Key flashes.The left-most four Soft Knobs (emulated HUI V-Pots) are now selectors for the first four plugins on your channel.
3. Turn one of the knobs to cycle through plugin choices shown on the Soft Knob key and TFT screen.
4. Press the bottom Soft Key next to that knob to confirm the selection.
5. Repeat with the other three knobs to set the other inserts.
6. To set the fifth insert, turn the **Insert Parameter Scroll** knob at the top-right of the Soft Knobs section.

   The emulated HUI display on the Touchscreen changes to show the fifth insert.
7. Turn the **Select 1** Soft Knob to select the plugin and press the Soft Key to confirm.
8. When finished, press the **DSP Assign** Soft Key to exit the plugin insertion mode.

To edit plugin settings:

1. Press the **Channel Insert** Soft Key.
2. Press the Soft Key corresponding to the plugin to edit (**Select 1–4**).

   The left-most four Soft Knobs now become the first four plugin parameters.
3. Turn the Soft Knobs to edit the settings.
4. If the plugin has more than four parameters, turn the **Insert Parameter Scroll** Soft Knob (top-right of Soft Knobs section) to display the additional page(s).

   The four left-most knobs reflect the current page of parameters.
5. Double-press the **Channel Insert** Soft Key to cycle through the instantiated plugins for that channel.
6. Press the **Bypass** Soft Key (top-right of Soft Keys section) to toggle the plugin between *bypass* and *insert*.

   These changes are reflected in the Pro Tools Inserts view for each track.

When first instantiating a plugin on a channel, that plugin's window pops up in Pro Tools. Subsequent plugin editing may not automatically open the plugin window. If the plugin window is not opening when the plugin is being edited, press the **Show Plugin** Soft Key in Soft Key bank 2.

Auxes

To assign a channel to an aux send:

1. Press the **Assign** Soft Key (second row in the main Soft Key section).

   The **Assign** key flashes.
2. Press one of the **Aux Send A–E** Soft Keys in the second row to select the send to edit.
3. Turn the **ASGN** Soft Knob (right-most bottom Soft Knob) to select where to send the channel.
4. Press the **ASGN** Soft Knob to confirm the selection.

   The send appears in Pro Tools.
5. Press the **Assign** Soft Key in the main Soft Key section to exit aux send assignment mode.

Editing Plugins on CM408 Module

1. Make sure the channel you wish to edit is in the first HUI indicated by a blue border around the track name in the Edit and Mix windows.
2. To display parameters on the CM408 channel strips, press the **Insert On** button adjacent to knob 7.
3. Quickly double-press the **Insert On** button again to cycle through each Insert on the Pro Tools track.
4. Use knobs 1–4 and **On** switches on the first four knobs for plugin parameter editing.
5. Use the scroll knob to navigate to additional plugin parameters.

2.7 Mackie Control Universal

Mackie Control Universal is a widely used MIDI-based protocol that controls application parameters and supports metering in many DAW applications. The extent to which Mackie Control can be used depends on the specific application's implementation. The Hybrid uses its own MIDI-over-Ethernet driver (incorporated into the EuCon software) to easily control these programs without MIDI cables.

As with HUI, you must have already:

- added the application(s) to control to the Euphonix Preferences pane (Figure 2-4);
- set their **Protocol** to **Mackie Control**;
- configured the MIDI ports they will use.

This information is required before each application can be configured.

2.7.1 Final Cut Pro and Soundtrack Pro

Configuring Final Cut Pro and Soundtrack Pro to operate with the Hybrid is very simple. Since both are Apple applications, their interfaces are similar and instructions may be combined.

Before proceeding, Final Cut Pro and Soundtrack Pro must already:

- have been added as non-EuCon applications in the Euphonix Preferences Pane;
- set to use Mackie Control,
- have MIDI ports set.

To finish the configuration:

1. In Final Cut Pro, choose **Tools->Control Surfaces**.

   The Control Surface dialog opens.

2. In Soundtrack Pro, choose **Soundtrack Pro->Preferences**.

   The Preferences dialog opens.

Figure 2-7 Add Control Surface dialog (Soundtrack Pro)

3. Click the **Control Surfaces** tab at the top.

   Now both programs can follow the same instructions.

4. Click the + button.

   The Add Control Surface dialog opens.

Control Surface Type: Mackie Control
Input Connection: Euphonix MIDI – Euphonix Port 5
Output Connection: Euphonix MIDI – Euphonix Port 5
Cancel
OK

Figure 2-8 Add Control Surface dialog

5. Select **Mackie Control** from the **Control Surface Type** drop-down menu.
6. For the **Input** and **Output Connection** drop-down menus, select the MIDI send and receive ports.

   These will be the same port, so if Soundtrack Pro uses ports 5–8, the first controller sends and receives on port 5.

7. Click **OK** to close the Add Control Surfaces dialog.

8. Repeat the process to add up to four controllers.
9. When finished adding controllers, click the **OK** button to close the dialog in Final Cut Pro. In Soundtrack, click the **Close** button at the top left to close the Preferences.
10. Restart the application or computer if initial communication is not achieved.

The Hybrid connects and updates with new track information.

2.8 DAD AX24 Microphone Preamplifier

Figure 2-9 DAD AX24 mic preamp

The DAD AX24 is a high-end *EuCon-ized* mic preamp from Digital Audio Denmark. The AX24's parameters can be controlled from the Hybrid surface, including: Mic/Line switching, Preamp Gain, Phantom On/Off, Phase, Mute, Channel Delay and Mono/Stereo linking. The AX24 must be connected to the workstation computer via USB link (available from DAD).

To enable EuCon in the DADMan software:

1. Open the DADMan Software on your workstation
2. Initiate USB communication with the device from the list of devices on the left of the DADMan window.
3. Enable **Eucon Controls** from the **File** menu.
4. When the DADMan software is the focused application, its controls are displayed on the Input Knobset on the Hybrid surface.